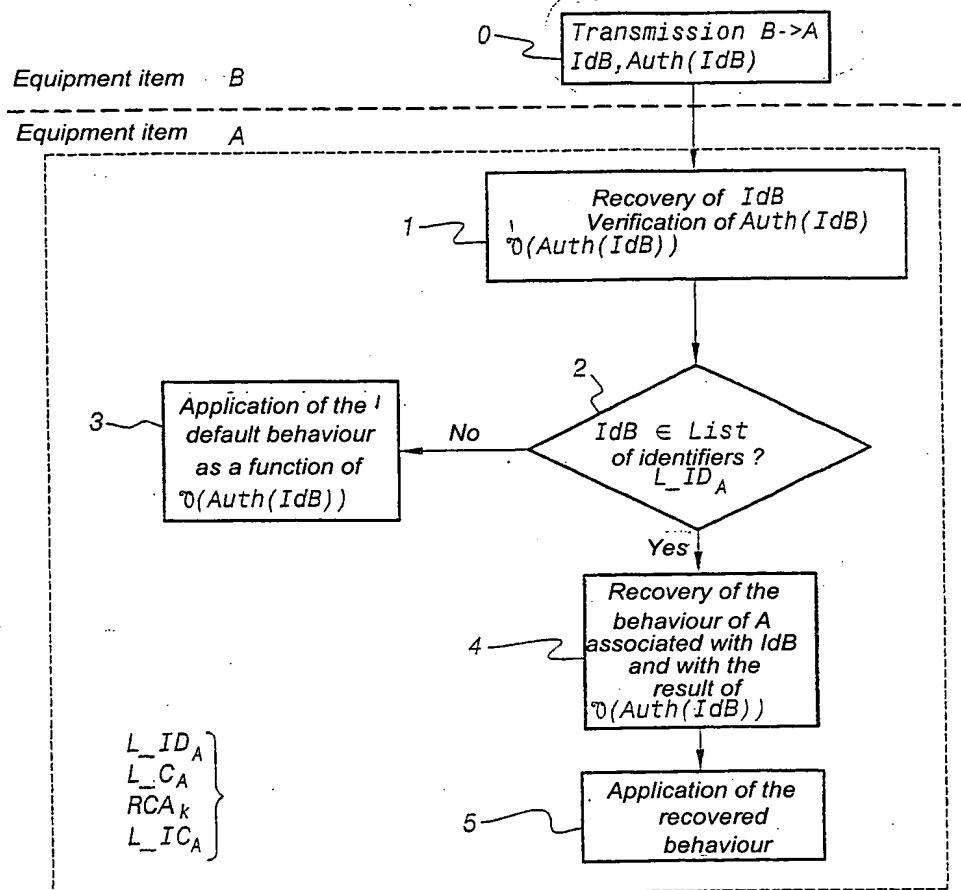


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$$\begin{cases} L_ID_A = [IdB, IdC, \dots, IdF, IdH] \\ L_C_A = [RCA_1, RCA_2, \dots, RCA_k, \dots, RCA_n] \\ RCA_k = [CA_1, CA_2, \dots, CA_p] \\ L_IC_A = [[IdB[RCA_1]]; [IdC[RCA_k]]; \dots] \end{cases}$$

FIG. 1

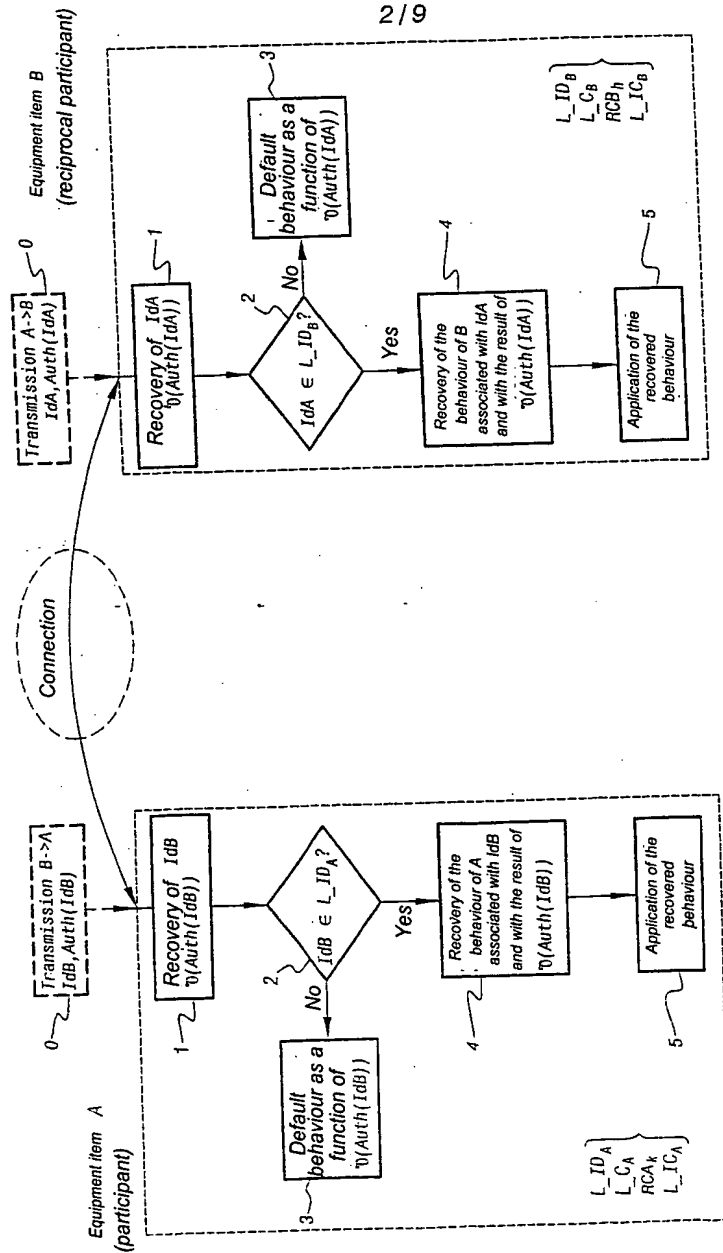


FIG. 2a

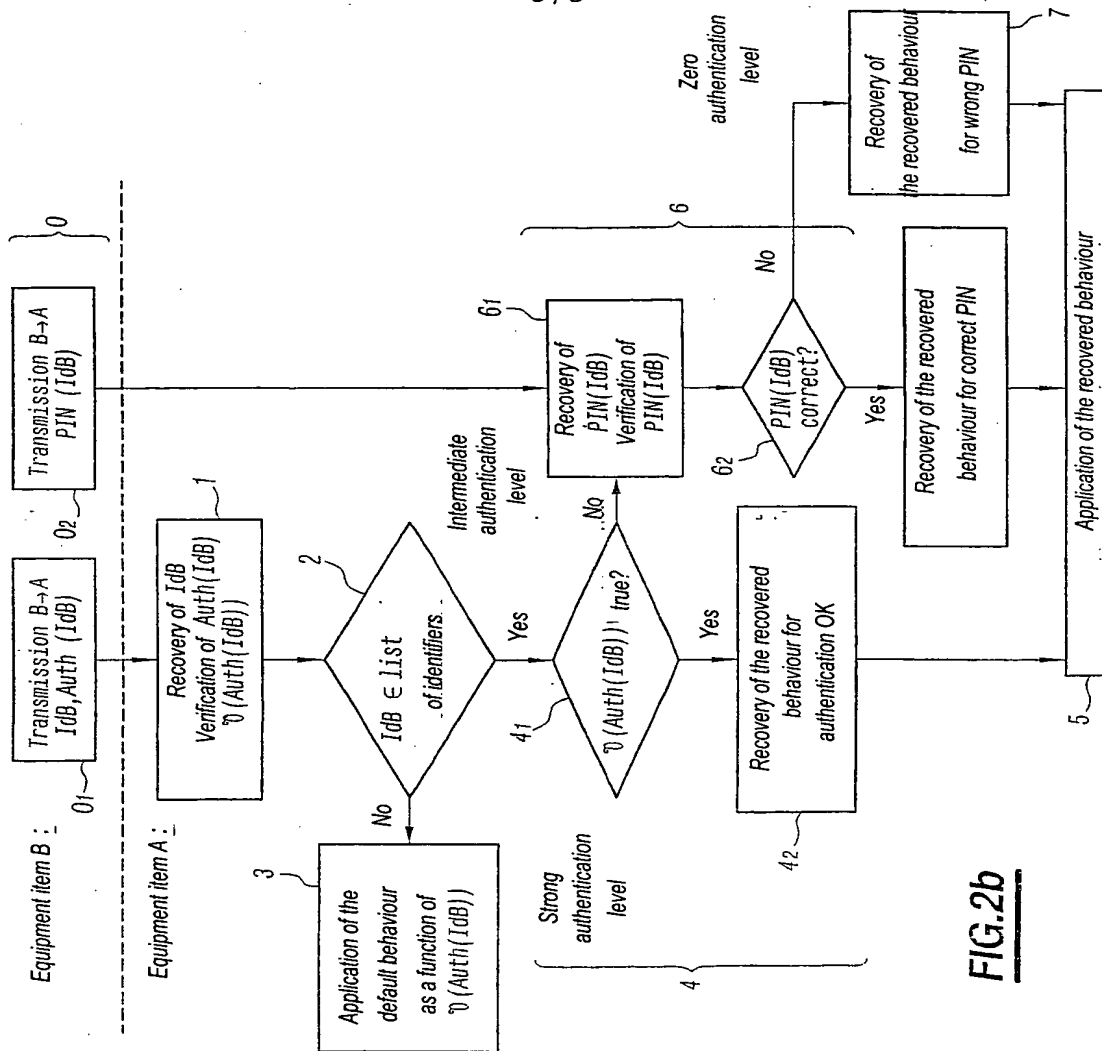


FIG.2b

Equipment item B

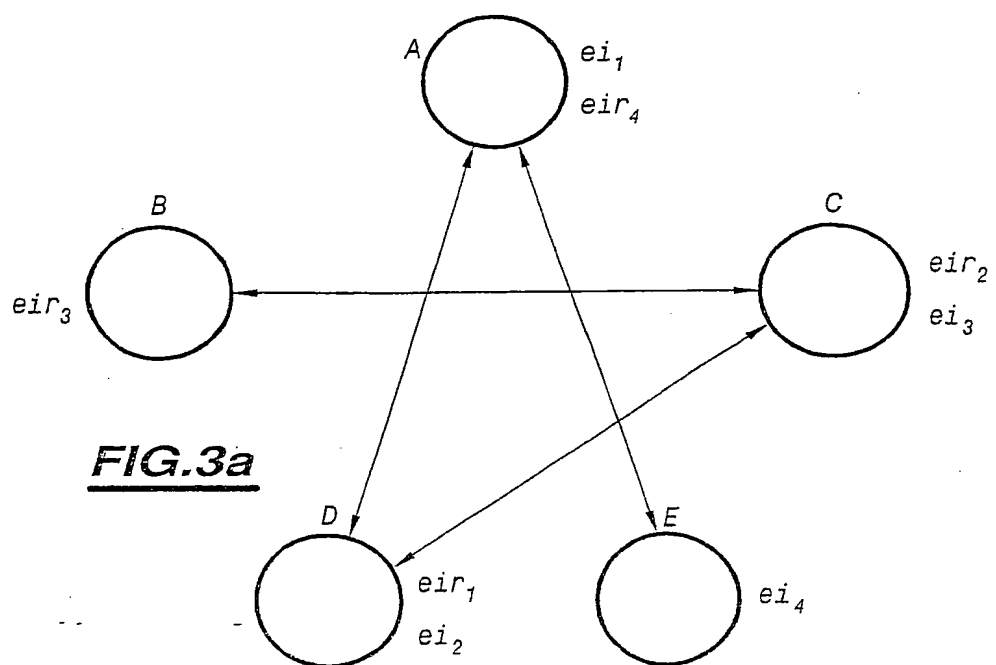
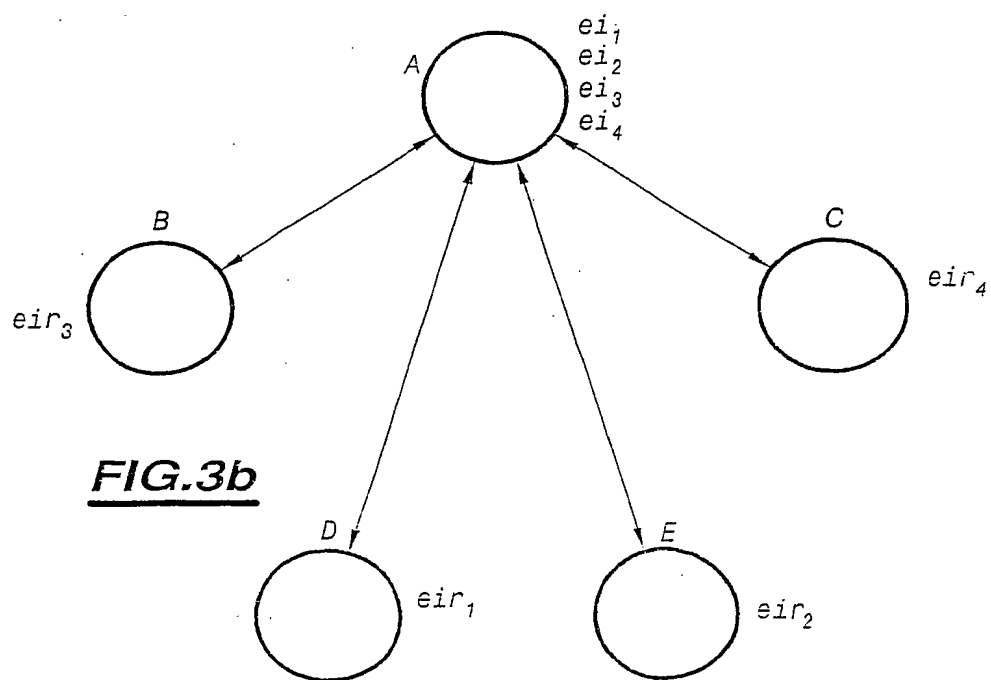
$$\begin{aligned} L_ID_B &= [IdA, IdD, IdE] \\ L_C_B &= [RCB_1, RCB_2, \dots, RCB_h, \dots, RCB_r, J] \\ RCB_h &= [CB_1, CB_2, \dots, CB_q] \\ L_IC_B &= [[IdA[RCB_2]]; [IdD[RCB_1]], \dots] \end{aligned}$$
FIG.2cEquipment item A

$$\begin{aligned} L_ID_A &= [IdB, IdC, \dots, IdF, IdH] \\ L_C_A &= [RCA_1, RCA_2, \dots, RCA_k, \dots, RCA_n] \\ RCA_k &= [CA_1, CA_2, \dots, CA_p] \\ L_IC_A &= [[IdB[RCA_1]]; [IdC[RCA_k]]; \dots] \end{aligned}$$
Equipment item B (Card)

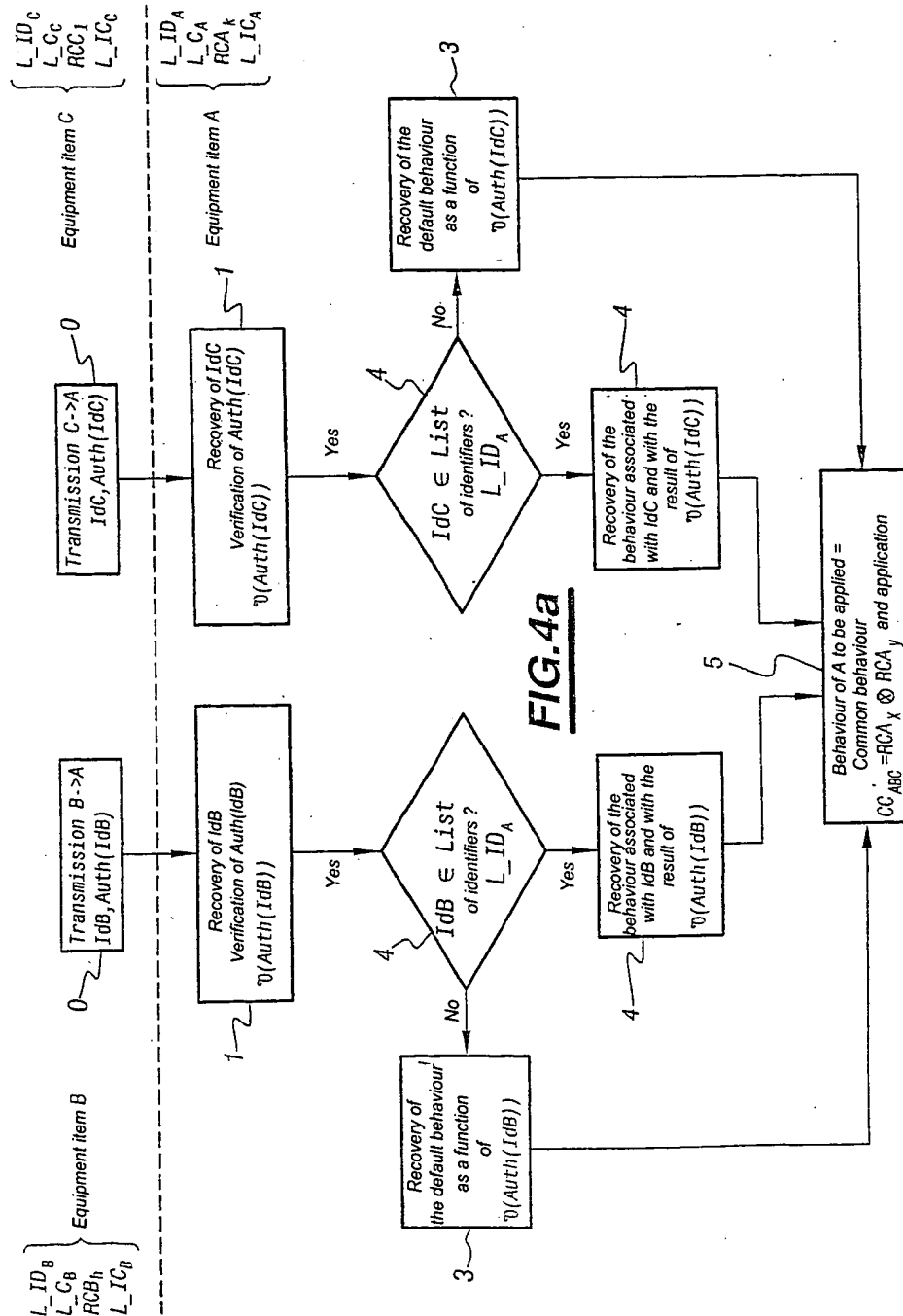
$$\begin{aligned} L_ID_B &= [IdA, IdD, IdE] \\ L_C_B &= [RCB_1, RCB_2, \dots, RCB_h, \dots, RCB_r, J] \\ RCB_h &= 1001010 \\ L_IC_B &= [[IdA[RCB_2]]; [IdD[RCB_1]], \dots] \\ &\quad \underbrace{\hspace{1.5cm}}_{(01001)} \quad \underbrace{\hspace{1.5cm}}_{(0100)} \end{aligned}$$
FIG.2dEquipment item A (Terminal)

$$\begin{aligned} L_ID_A &= [IdB, IdC, \dots, IdF, IdH] \\ L_C_A &= [RCA_1, RCA_2, \dots, RCA_k, \dots, RCA_n] \\ RCA_k &= 010010110 \\ L_IC_A &= [[IdB[RCA_1]]; [IdC[RCA_2]], \dots] \\ &\quad \underbrace{\hspace{1.5cm}}_{(010010)} \quad \underbrace{\hspace{1.5cm}}_{(01001)} \end{aligned}$$

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**FIG. 3a****FIG. 3b**

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Equipment item B

$$\begin{aligned}
 L_ID_B &= [IdA, IdC, \dots, IdE] \\
 L_C_B &= [RCB_1, RCB_2, \dots, RCB_h, \dots, RCB_r] \\
 RCB_h &= [CB_1, CB_2, \dots, CB_q] \\
 L_IC_B &= [[IdA[RCB_2]]; [IdD[RCB_1]]; \dots]
 \end{aligned}$$
Equipment item C

$$\begin{aligned}
 L_ID_C &= [IdA, IdB, \dots, IdF] \\
 L_C_C &= [RCC_1, RCC_2, \dots, RCC_1, \dots, RCC_s] \\
 RCC_1 &= [CC_1, CC_2, \dots, CC_o] \\
 L_IC_C &= [[IdA[RCC_1]]; [IdB[RCC_1]]; \dots]
 \end{aligned}$$
FIG.4bEquipment item A

$$\begin{aligned}
 L_ID_A &= [IdB, IdC, \dots, IdF, IdH] \\
 L_C_A &= [RCA_1, RCA_2, \dots, RCA_k, \dots, RCA_n] \\
 RCA_k &= [CA_1, CA_2, \dots, CA_p] \\
 L_IC_A &= [[IdB[RCA_1]]; [IdC[RCA_k]]; \dots]
 \end{aligned}$$

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$$L_{IC_A} = [[IdB[RCA_1]]; [IdC[RCA_p]]]$$

$$CC_{ABC} = RCA_1 \cap RCA_p$$

FIG.4c

$$L_{IC_A} = [[IdB, [RCA_1]]; [IdC[RCA_p]]]$$

$$\underbrace{b = (010010)} \quad \underbrace{c = (010010)}$$

$$CC_{ABC} = b \cap c = \text{bitand}(b, c)$$

FIG.4d

$$L_{IC_A} = [[IdB[RCA_1]]; [IdC[RCA_p]]]$$

$$CC_{ABC} = RCA_1 \cup RCA_p$$

FIG.4e

$$L_{IC_A} = [[IdB[RCA_1]]; [IdC[RCA_p]]]$$

$$\underbrace{b = (010010)} \quad \underbrace{c = (010011)}$$

$$CC_{ABC} = b \cup c = \text{bitor}(b, c) = 010011$$

FIG.4f

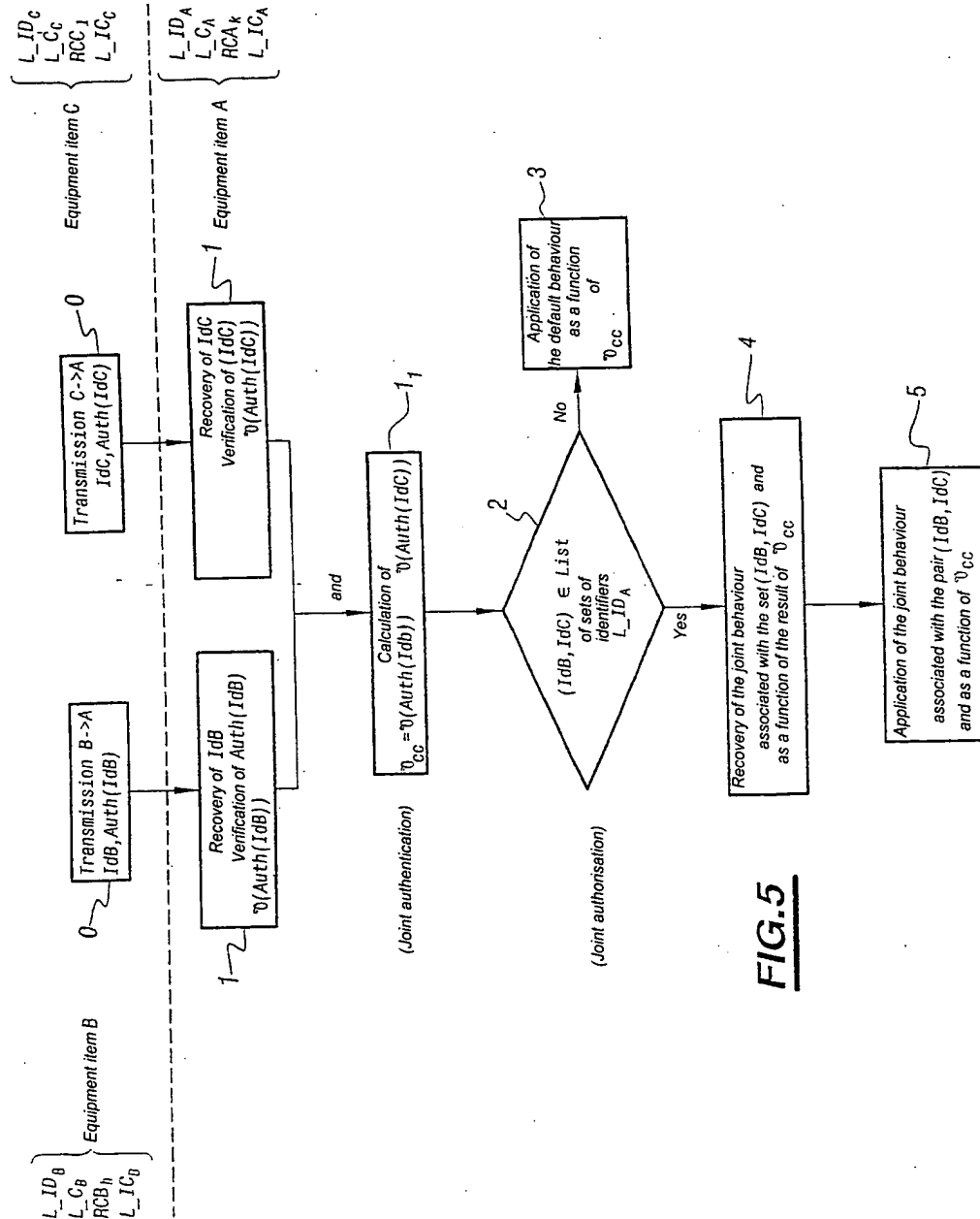


FIG. 5